

Election/Restrictions

Applicant's election without traverse of Group I, claims 1-29, in the reply filed on 5/2/11 is acknowledged. Claims 30-88 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected inventions, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 112

Claims 1-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, a "heating element extending in a first direction" is indefinite because no heating element structure has been recited to establish a single, meaningful "direction" characteristic of the heating element.

Also in claim 1, line 2, "printing plate., in use," does not accurately recite the contemplated structure. If the printing plate were "in use" it would be printing media. It is evidently being conveyed through the heating apparatus to prepare it for use.

Claim 1, line 3, recites "at an angle," which is indefinite because it is not limiting and leaves Applicant's contemplated arrangement unclear. "An angle" can be any value between 0 and 360 degrees.

In claim 12, "***laterally*** across the heating apparatus" (Examiner's emphasis) is unclear because a structure with respect to which a lateral location, or direction, is defined has not been recited.

In claim 13, "a first end of a first heating element" and "a second end of a second heating element" presuppose an antecedent structural basis with respect to which these "ends" are unambiguously defined, but which is lacking. Claim 14 suffers a similar ambiguity: any of diverse polygonal shapes can be said to have "first" and/or "second ends."

In claim 15, line 2, "centrally laterally" is per se indefinite; "one right group and one left group" and "lateral edges" all refer to a structural basis which is lacking.

In claim 18, the "angle" of "substantially 80th" is defined and subtended at an axis of a heating element?

In claim 21, "the longitudinal axes" lacks antecedent basis.

In claims 22 and 29, "a herring bone pattern" does not clearly recite the contemplated structure. What relative placement of lamps defines such a structure?

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9, 13, 16-18, 20, 21, and 25-28 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 19614372.

Referring to Fig. 1, the abstract, and col. 8, lines 18-20, DE'372 discloses a printing plate heater comprising a plurality of elongate, parallel halogen IR lamps 11 extending in a first, transverse direction, with reflectors 12 providing overlapping areas of illumination, and printing plates passing beneath the lamps in a direction "at an angle" of 90 degrees with respect to the direction identified with the linearly elongate structure of the lamps, exactly as claimed.

Claim Rejections - 35 USC § 103

Claims 10-12, 14, 19, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE'372 in view of US Pat. 6807906.

The claims differ substantively from DE'372 only in calling for the characteristic axes of the lamps to be arranged at an angle of at most 70 degrees from the direction in which the plates are travelling. '906 discloses, at col. 9, 46, through col. 10, line 49, a planar workpiece heated by a parallel array of elongate lamps arranged at an angle of at most 70 degrees from the direction in which the workpiece is travelling. It would have been obvious to adopt such an angled orientation of the lamps since '906 discloses this to enhance heating uniformity.

While '906 does not explicitly disclose lamp control by "pulsated" activation, the radiant energy of the lamps subtending an "angle" of "substantially 80°" at the heater axes, these features do not patentably distinguish the claimed invention from the prior art. It would have been obvious to utilize "pulsated" activation, i.e., varying the "duty cycle" of the lamps to control heating since this is a conventional manner of controlling electric heaters in diverse applications, and the desirability of a subtended "angle" of "substantially 80°" at the heater axes would have been determined strictly and routinely by the known power requirements for heating the plates, and the available power for the lamps providing the heat, i.e., the number, spacing, distance of lamps from the workpiece, and the desired overlap.

Allowable Subject Matter

Claims 15, 22, and 29 **would appear to be** allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The Examiner reserves a final opinion, however, until such time as the issues of clarity are resolved.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH M. PELHAM whose telephone number is (571)272-4786. The examiner can normally be reached on M-F 8:30 AM to 5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on 571-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/JOSEPH M PELHAM/
Primary Examiner, Art Unit 3742
5/23/11